REMARKS

Status of Claims

Claims 4, 7-8, and 11 are pending. Claim 4 is the only independent claim. In this Reply, claim 4 has been amended to include the recitation that "said dip bath liquid has previously been used to sterilize the packaging material" and to correct a typographical error. Support for such amendment exists, *inter alia*, at page 4, lines 1-9 of the specification. No new matter has been added.

Applicants respectfully request the Examiner to reconsider and withdraw the outstanding rejections in view of the foregoing amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 103

The rejection of claims 4, 7, and 9-12 under 35 U.S.C. § 103(a) over U.S. Patent No. 5,609,821 ("Grimberg et al.") in view of U.S. Patent No. 5,130,053 ("Feasey et al.") is respectfully traversed.

Claims 9-10 and 12 were previously canceled. Accordingly, the § 103(a) rejection of claims 9-10 and 12 is now moot.

In regard to claims 4, 7, and 11, the presently claimed method of sterilizing a foodstuff packaging material involves passing the packaging material through a dip bath liquid comprising hydrogen peroxide and ***200-500 ppm*** of a foodstuff-compatible phosphonic acid. In the presently claimed method, the ***dip bath liquid has previously been used to sterilize the packaging material***. As set forth in the specification, the previous use of the dip bath liquid provides ***contamination*** in the dip bath liquid in the form of packaging material residues. Page 4, lines 1-9. However, it has been discovered that such contaminated hydrogen peroxide treated with ***200-500 ppm*** of the phosphonic acid ***still behaves stably*** even at higher temperatures compared with standard quality hydrogen peroxide. *Id.*

In contrast, Grimberg et al. discloses a process for disinfecting or sterilizing an article comprising ***spraying*** on at least one surface of the article an aqueous hydrogen peroxide solution including an organic phosphonic acid in

an amount effective to stabilize the hydrogen peroxide solution, the solution being free of other stabilizing agents. Col. 2, lines 31-38. The article can be a packaging for a foodstuff. Col. 4, lines 6-7. Grimberg et al. is particularly directed to using a hydrogen peroxide solution of ***high purity***, in which the concentration of the phosphonic acid is ***less than 50 mg/kg (i.e. less than 50 ppm)*** to avoid fouling of the spraying system. Col. 1, lines 56-60; col. 3, lines 29-32 and 42-44; and col. 4, lines 11-12 and 28-30.

Feasey et al. is directed to a process for stabilizing concentrated solutions of hydrogen peroxide during storage. Abstract. The process of Feasey et al. involves contacting hydrogen peroxide with a specific phosphonic acid compound. *Id.* Feasey et al. discloses that the stabilized solution can be used for a very wide variety of different types of uses such as metal treatment, metal extraction, separation, or purification, disinfection, bleaching processes, and chemical synthesis. Col. 4, lines 13-28. Feasey et al. further discloses that the amount of stabilizer in the composition is generally ***10-5000 ppm*** and ***varies based on the purpose of the composition***. Col. 4, lines 40-46. Importantly, Feasey et al. demonstrates that ***contamination*** of the composition ***affects the required concentration of the phosphonic acid compound***.

The combination of Grimberg et al. and Feasey et al. does not render the presently claimed method obvious because the combination of Grimberg et al. and Feasey et al. does not disclose or suggest each and every element of independent claim 4. A *prima facie* case of obviousness requires that each and every claim limitation be present in the cited reference or cited references when combined. M.P.E.P. § 2143.03. However, the combination of Grimberg et al. and Feasey et al. does not disclose or suggest a dip bath liquid which has ***previously been used to sterilize foodstuff packaging material*** and comprises ***200-500 ppm*** of a foodstuff-compatible phosphonic acid.

First, neither Grimberg et al. nor Feasey et al. disclose or suggest a dip bath liquid which has previously been used to sterilize foodstuff packaging material. As discussed above, the previously used dip bath liquid is

contaminated. In contrast, Grimberg et al. discloses a sterilization process that involves ***spraying*** articles with ***high purity***, stabilized solutions of hydrogen peroxide and organic phosphonic acids. Such sprayed, high purity, stabilized solutions are not subject to contamination like the recited dip bath liquid. While Feasey et al. discloses a variety of intended uses for its stabilized solutions, Feasey et al. does not disclose or suggest using its solutions in a dip bath liquid for sterilizing foodstuff packaging material. Rather, Feasey et al. is directed to stabilizing stored solutions, not solutions in use.

Second, neither Grimberg et al. nor Feasey et al. disclose or suggest a previously used dip bath liquid that comprises ***200-500 ppm*** of a foodstuff-compatible phosphonic acid. As discussed above, Grimberg et al. discloses using the organic phosphonic acids in an amount ***less than 50 ppm*** to avoid fouling of the spraying system. Feasey et al., on the other hand, teaches using on the order of ***at least 1000 ppm*** phosphonic acid stabilizer in contaminated solutions, such as the recited dip bath liquid which has previously been used to sterilize foodstuff packaging material.

In particular, Feasey et al. discloses that metal treatment solutions, such as metal pickling and polishing solutions contaminated with transition metal catalysts, can contain ***1000-5000 ppm*** stabilizer. Col. 4, lines 54-58. In Example 13, Feasey et al. utilizes ***900 mg/l (i.e. 900 ppm)*** of phosphonic acid compound to achieve good stability in a hydrogen peroxide solution diluted with contaminated muncipal water. These concentrations of stabilizer are ***significiantly greater than the 200-500 ppm*** foodstuff-compatible phosphonic acid present in the contaminated dip bath liquid.

Feasey et al. clearly teaches away from using 200-500 ppm in a contaminated solution, such as the contaminated dip bath liquid. Feasey et al. uses less stabilizer in ***non-contaminated solutions***. In electronic grade solutions which tend to employ the purest ingredients, Feasey et al. discloses using 10-50 ppm stabilizer. Col. 4, lines 47-49. In grades of solution intended for chemical syntheses, which are clean, Feasey et al. discloses using 50-1000 ppm

stabilizer. Col. 4, lines 49-52. In solutions intended for treating contact lenses, which are high purity diluted hydrogen peroxide solutions, Feasey et al. discloses using 50-1000 ppm stabilizer or stabilizer in the region of 1000 ppm. Example 5 and col. 4, lines 52-53. In Example 6, Feasey et al. discloses storage of clean aqueous hydrogen peroxide solutions with stabilizer at a concentration of 20-1000 ppm. In Examples 1, 3 and 8-12, Feasey et al. also discloses addition of 500 ppm and 1000 ppm stabilizer to test solutions doped with Fe or Cu so as to catalyze decompositon of hydrogen peroxide, which test solutions are analogous to clean solutions used for chemical syntheses. Moreover, even in such clean solutions, when Feasey et al. attempted to use only 500 ppm of a phosphonic acid stabilizer, they obtained inferior results. Only by addtion of an additional stabilizer, such as citirc acid or p-hydroxybenzoid acid were good results obtainable.

If one of ordinary skill in the art followed the teachings of Feasey et al. regarding stabilizer concentration to select a concentration of phosphonic acid stabilizer suitable for the contaminated dip bath liquid, he or she would use stabilizer in a concentration on the order of ***at least 1000 ppm***, not in a concentration of the presently recited 200-500 ppm range. Due to the contamination in the dip bath liquid which has previously been used to sterilize foodstuff packaging material, he or she would select an amount of ***stabilizer suitable for contaminated hydrogen peroxide solutions***. One of ordinary skill in the art would not select an amount of stabilizer suitable for non-contaminated hydrogen peroxide solutions, such as the 50-1000 ppm concentration of Example 5 suitable for high purity diluted hydrogen peroxide solutions, cited in the July 27, 2007 Advisory Action. As discussed above, Feasey et al. discloses stabilizer amounts on the order of at least 1000 ppm for contaminated solutions.

Accordingly, the Office Action has improperly relied upon Feasey et al. to arrive at the presently recited 200-500 ppm range. Contrary to the assertion at page 2 of the July 27, 2009 Advisory Action, Example 5 of Feasey et al. does not

disclose or suggest that the concentration range of between 50 and 1000 ppm for the phosphonic acid is found to be the most effective.

Therefore, for at least the reasons discussed above, withdrawal of the § 103(a) of claims 4, 7, and 11 is respectfully requested.

The rejection of claims 8 and 13 under 35 U.S.C. § 103(a) over Grimberg et al. in view of Feasey et al. and further in view of U.S. Patent No. 4,104,024 ("Vogele et al.") also is respectfully traversed.

Claim 13 was previously canceled, so the rejection of claim 13 is moot.

In regard to claim 8, the combination of Grimberg et al., Feasey et al., and Vogele et al. does not render the presently claimed method obvious because the combination of Grimberg et al., Feasey et al., and Vogele et al. does not disclose or suggest each and every element of independent claim 4. As discussed above, the combination of Grimberg et al. and Feasey et al. does not disclose or suggest a dip bath liquid which has ***previously been used to sterilize foodstuff packaging material*** and comprises ***200-500 ppm*** of a foodstuff-compatible phosphonic acid. Vogele et al. does not correct these deficiencies of Grimberg et al. and Feasey et al.

Therefore, for at least the reasons discussed above, withdrawal of the § 103(a) rejection of claim 8 is respectfully requested.

Conclusion

In view of the foregoing amendments and remarks, the application is respectfully submitted to be in condition for allowance, and prompt, favorable action thereon is earnestly solicited.

If there are any questions regarding this Reply or the application in general, a telephone call to the undersigned at (202) 624-2845 would be appreciated since this should expedite the examination of the application.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and

please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #101771.53337US).

Respectfully submitted,

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